

### REMARKS

Reconsideration of the present application as amended is requested in view of the following arguments. In the Office Action of March 15, 2004, objection was raised as to the title as not being descriptive. Applicants have amended the title to refer to "Packet Queuing Control for a Network Switch", which is in keeping with the gravamen of the pending claims.

This application includes 16 claims, each of which stand rejected on various grounds. Claim 1 was objected to because of a grammatical error. This claim has been amended to insert the word "in" at line 9 so the excerpt now reads "to a next location in the main queue". Claims 15 and 16 were rejected under 35 U.S.C. §112 for a lack of antecedent basis to two terms in claim 15. Claim 15 has been amended to remove the term "transaction" in reference to the plurality of pointers. In addition, claim 15 has been amended to delete the language "corresponding to the first memory location in a broadcast queue" as superfluous. The language in the preamble is intended to refer to a method step previously defined in parent claim 14. Reference to the step as "the process of storing a plurality of pointers" is sufficient to refer to that step as defined in claim 14. It is believed that the amendments to claims 1 and 15 have addressed all of the concerns and objections raised with respect to the claims.

Each of the claims stand rejected in view of the primary reference of Harriman (U.S. Patent No. 5,898,687). In particular, independent claim 1 was rejected as anticipated by the '687 Patent, echoing a similar rejection in the First Office Action. Applicants' prior arguments distinguishing the claimed invention from the system disclosed in the '687 patent were rejected, with specific reference to Col. 5, lines 49-60 and items 200 and 240 in FIGS. 1 and 2 of that patent. It is again asserted that the '687 patent does not disclose or teach storing a pointer to a next location in the main queue in the broadcast queue, as recited in claim 1. As explained in the Office Action, the cited text discloses that the multicast queues of the '687 patent store the address pointers for locations in shared memory that hold the payload of the next cell to be multicast. However,

this feature is not what is claimed in Applicants' claim 1. In particular, claim 1, as previously amended, recites a main queue and a broadcast queue, in which the broadcast queue includes "at least one pointer to a next location in the main queue." [Emphasis added]. The multicast queues in Harriman do not include such a pointer. Instead, as the cited excerpt at column 5 of the Harriman '687 patent reveals, Harriman simply contemplates copying the address pointer (to a location in the shared memory) into each multicast output queue. The Harriman Patent does not disclose or contemplate a pointer in each multicast output queue that points to a location in the main queue from which the memory address is obtained.

As Applicants argued in response to the First Office Action, Harriman discloses separate and distinct elements for handling unicast and multicast operations. In particular, the '687 Patent discloses unicast queues 130 (FIG. 1) that are separate from the multicast engine 200 and its plurality of multicast output queues 240 (FIG. 2). See, col. 4, lines 46-51. As indicated at col. 4, lines 59-61, the '687 Patent contemplates replicating only an address pointer to the memory location of the single copy of multicast data for each destination of the multicast connection. There is no suggestion in the Harriman patent for including a pointer in the broadcast queue that points, not to a shared memory location, but to a location in the main queue. Thus, the Harriman '687 Patent cannot anticipate claim 1, nor is there any suggestion to modify Harriman in the manner necessary to render obvious claim 1 of the present application. Consequently, it is believed that claim 1 is patentable over the art of record. Claims 2-7 are all dependent from claim 1 and are therefore also in condition for allowance.

Independent claim 8 was also rejected as anticipated by Harriman. This claim recites a broadcast queue for storing information related to broadcast transmissions and a separate main queue. In accordance with the claimed invention, the main queue stores information corresponding to data packets to be transmitted as unicast transactions and information corresponding to data packets to be transmitted as broadcast transactions. Again, this feature is

absent from system disclosed in the Harriman '687 Patent. As explained above, the unicast and multicast queues in Harriman are maintained separate and distinct. There is nothing in the '687 Patent that discloses or suggests the combination of a broadcast queue and a main queue configured as recited in Applicants' claim 8. It is not relevant, as suggested in the Office Action, that Harriman discloses a shared memory that stores payloads for both unicast and multicast transmission. The packet queuing control in Harriman does not incorporate a broadcast queue and a main queue, in which the main queue includes information corresponding to both unicast and broadcast transactions.

Thus, it is believed that claim 8 and its dependent claims 9-13 are patentable over the art of record. The Harriman '687 Patent does not disclose every element of Applicants' claimed invention, nor does it contemplate the broadcast and main queues recited in claims 8-13.

Independent claim 14 and its dependent claims 15-16 were rejected as obvious in view of the combination of Harriman and the patent to Sato (U.S. No. 6,009,078). Independent claim 14 is similar to claim 1 discussed above. In particular, method claim 14 recites: storing a pointer in a main queue corresponding to the next location in the main queue corresponding to a memory location in the event of a unicast transaction; and otherwise storing a plurality of pointers in a broadcast queue in which the pointers correspond to one or more next locations in the main queue corresponding to a memory location. As explained above in connection with claim 1, Harriman does not disclose or contemplate a system in which the broadcast queue pointers point to a location in the main queue. Instead, both Harriman and Sato disclose systems in which the queue pointers only point to locations in the shared memory.

Even if Harriman is combined with Sato, the resulting combination still fails to disclose each element of Applicants' invention as defined in claims 14-16. Thus, these claims are believed to be patentable over the prior art of record.

Applicants have again traversed the rejections of claims 1-16 in view of the art of record. Consequently, it is believed that the present application is in

condition for allowance and favorable reconsideration of this application in that light is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, reading "Michael D. Beck". The signature is written in a cursive style with a large, stylized "M" and "B".

Michael D. Beck  
Reg. No. 32, 722  
Maginot, Moore & Beck  
Bank One Center/Tower  
111 Monument Circle, Suite 3000  
Indianapolis, IN 46204-5115  
Tel.: 317-638-2922